



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,280	02/14/2002	Ping-Ling Fan	67,200-671	3287

7590 04/09/2004

TUNG & ASSOCIATES  
Suite 120  
838 W. Long Lake Road  
Bloomfield Hills, MI 48302

EXAMINER

GUADALUPE, YARITZA

ART UNIT	PAPER NUMBER
----------	--------------

2859

DATE MAILED: 04/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/077,280

Applicant(s)

FAN ET AL.

Examiner

Yaritza Guadalupe

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

In response to Amendment filed February 9, 2004

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "14" has been used to designate both a gauge ( Figure 1 ) and the cover (Figure 2). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "12" and "14" have both been used to designate the cover. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to because the gauge has not been clearly identified in Figures 2 and 3. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Objections***

4. Claims 1 – 22 are objected to because of the following informalities:
  - a. The claims are replete with typographical errors. For example, claim 1 refers to “an electrostatic chuck... wherein said electrostatic is moveable...”. The word chuck should be added after electrostatic in line 4 of claim 1 in order to keep a consistent language throughout the claim. Also, the electrostatic chuck is referred as “chunk” in some claims. Applicant should review and correct the claims for these grammatical problems. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
6. Claims 1 – 22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 1, 11 and 21 - 22 refer to a gauge apparatus and method comprising a gauge for measuring a gap between a baffle plate and a chamber wall, but it is not clear how this is accomplished. Appears that important structures and element are needed as part of this gauge in order to reach the desired measurements. In addition, discrepancies have been found between the Figures and the Specification which makes it difficult to understand. For example, the specification shows reference element # 12 to be a cover. Figure 1 also shows the element #12 as the cover. However, Figures 2 and 3 labels the same structure as reference element #14, which according to the specification corresponds to the gauge. Also, Figures 1 discloses element # 14 to be the gauge, but there is no way to identify the gauge in Figures 2 and 3 other than by correlating similar structure in the drawings.

As best understood, the gauge includes a leveling mechanism. However, it is not clear how this leveling mechanism will work in order to measure the gap between the baffle plate and the chamber wall. Furthermore, it is indicated that the gauge ( 14 ) in Figure 1 is shown in conjunction with the chamber walls ( see Figures 1 and 2 ), but in Figure 3 is shown in combination with the leveling mechanism, which is perpendicular to what appears to be the gauge ( element #74 ). It is not clear how the arrangement shown in Figure 3 will measure the gap between the baffle plate and the chamber walls since the position of the leveling mechanism ( 78 ) appears to only measure the height at which the plate will reach and not the desired gap between the baffle plate and the chamber wall.

Art Unit: 2859

Claims 2 – 10 and 12 – 20 are rejected due to their dependency on claims 1, 11 and 21 – 22.

Due to the discrepancies and deficiencies mentioned above, a Prior Art rejection will not be given until the Applicant provides appropriate correction and clarification. Applicant is reminded that no new matter should be added.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1 - 22 have been considered but are moot in view of the new ground(s) of rejection.

After reviewing applicant arguments, it is noted that Applicant is using broad terms to argue specifics that are not even present in the claims. For example, Applicant argues that APA fails to teach the leveling mechanism ( 78 ), which prevents the baffle plate ( 16 ) from scratching the chamber apparatus during movement of the ESC ( 34 ) in the vertical direction, and that this leveling mechanism, which permits accurate measurement of the gap between the baffle plate ( 16 ) and the chamber wall, is the point of Applicant invention. However, nowhere in independent claim 1 or subsequent claims 2 – 5, the leveling mechanism is mentioned. If in fact the leveling mechanism is Applicant's invention, the claim language shows otherwise. Furthermore, applicant needs to explain in further details how the leveling means measures the

Art Unit: 2859

gap between the baffle plate and the chamber wall. Applicant merely claims the leveling mechanism to be more efficient by accurately measuring the gap ( See page 13 of the Specification ), but it is not understood how the leveling mechanism ( 78 ) could measure the gap between the plate and the chamber wall from the horizontal position, since the position of the leveling mechanism ( As shown in the drawings ) appears only to give indication of the height of the plate and not the distance between the plate and the wall and since applicant fails to provide further support and details in regards the matter. The mere claim of efficiency is not enough to provide any patentable weight when structurally, the mechanism appears to show otherwise.

Regarding the preamble and intended use of the apparatus, the examiner points out that a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the structural limitations are able to stand alone. See *In re Hirao* , 535 F.2d 67, 190 USPQ 15 ( CCPA 1976) and *Kropa v. Robie* , 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). The fact that the claims refer to a gauge apparatus for use in a semiconductor fabrication system comprising an electrostatic chuck movable from a first to a second position and a gauge for measuring a gap between a baffle plate and a chamber wall, and preventing damage to said chamber wall by said baffle plate during a movement of said electrostatic chunk during a semiconductor fabrication operation of said semiconductor fabrication system, wherein said gauge is located proximate to said electrostatic chuck at said second position of said electrostatic chuck, as argued by Applicant, does not patentably distinguish the cited Prior Art from the structure claimed by Applicant and only provides a

Art Unit: 2859

recitation of the intended use since only states the function and location of the gauge which is considered only a matter of the performance to which is intended to be used for.

All the claims refer to what the apparatus does and not to a structural limitation that could distinguish the invention from the APA. It is emphasized that "apparatus claims must be structurally distinguishable from the prior art." MPEP 2114. In *In re Danly*, 263 F. 2d 844, 847, 120 USPQ 528, 531 (CCPA 1959) it was held that apparatus claims must be distinguished from prior art in terms of structure rather than function. In *Hewlett-Packard Co v Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990), the court held that: "Apparatus claims cover what a device is, not what it does." (emphases in original). To emphasize the point further, the court added: "An invention need not operate differently than the prior art to be patentable, but need only be different" (emphases in original). That is, in an apparatus claim, if a prior art structure discloses all of the structural elements in the claim, as well as their relative juxtaposition, then it reads on the claim, regardless of whether or not the function for which the prior art structure was intended is the same as that of the claimed invention.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yaritza Guadalupe whose telephone number is (571)272 -2244. The examiner can normally be reached on 9:00 AM - 6:30 PM.



Art Unit: 2859

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F.F. Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Yaritza Guadalupe  
Patent Examiner  
Art Unit 2859  
April 7, 2004

DIEGO F.F. GUTIERREZ  
SUPERVISOR PATENT EXAMINER  
TECHNOLOGY CENTER 2800